



## UNITED STATES DEPARTMENT OF COMMERCE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/063,522	05/13/98	KOIZUMI	706-20

005514

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EXAMINER

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RAO, M

ART UNIT	PAPER NUMBER
1652	13

DATE MAILED:

12/23/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

## Office Action Summary

Application No  
09/068,528

Applicant(s)

Kolzumi et al.

Examiner

Manjunath Rao

Group Art Unit

1652



Responsive to communication(s) filed on May 13, 1998

This action is **FINAL**.

Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle* 1035 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 1 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

### Disposition of Claim

Claim(s) 1-71 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

Claim(s) \_\_\_\_\_ is/are allowed.

Claim(s) \_\_\_\_\_ is/are rejected.

Claim(s) \_\_\_\_\_ is/are objected to.

Claims 1-71 are subject to restriction or election requirement.

### Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

The proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All  Some\*  None of the CERTIFIED copies of the priority documents have been

received.

received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

received in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

### Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s) \_\_\_\_\_

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 1652

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in response to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1,5,8,15, 16, 17, 18 and 20, drawn to a process for producing a sugar nucleotide.

Group II, claim(s) 2, 3, 4, 6, 7, 9, 10, 11-14, drawn to a process for producing a complex carbohydrate.

Group III, claim(s) 21, 22, 23, 24, drawn to process for producing a sugar nucleotide using the enzymes glk, pgm, galU or ppa.

Group IV, claim(s) 25, drawn to process for producing a sugar nucleotide using diphosphoglucose dehydrogenase enzyme.

Group V, claim(s) 26-29, drawn to process for producing a sugar nucleotide using galK enzyme.

Group VI, claim(s) 30-32, drawn to process for producing a sugar nucleotide using galT enzyme..

Art Unit: 1652

Group VII, claim(s) 33-36, drawn to process for producing a sugar nucleotide using glK, pgm, galU or ppa enzyme.

Group VIII, claim(s) 37-39, drawn to process for producing a sugar nucleotide using glmU enzyme.

Group IX, claim(s) 40-45, drawn to process for producing a sugar nucleotide using pgm, ptkB enzyme.

Group X, claim(s) 46-49, drawn to process for producing a sugar nucleotide using glmU, ppa, glmM or glk enzyme.

Group XI, claim(s) 50-53, drawn to process for producing a sugar nucleotide using manB, manC, glk enzyme.

Group XII, claim(s) 54-57, drawn to process for producing a sugar nucleotide using manB, manC, glk, gmd, wcaG enzyme.

Group XIII, claim(s) 58-61, drawn to process for producing a sugar nucleotide using neuA, nanA, neuB, pyrG enzyme.

Group XIV, claim(s) 62-64, drawn to process for producing a sugar nucleotide using glycosyltransferase, galactosyltransferase, N-acetylglucosaminyltransferase, N-acetylgalactosaminyltransferase, glucuronosyltransferase, mannosyltransferase, sialyltransferase, fucosyltransferase.

Group XV, claim(s) 65-67, drawn to process for producing a sugar nucleotide using enzyme prepared from animal cell lines.

Art Unit: 1652

Group XVI, claim(s) 68-71, drawn to process for producing N-acetylglucosamine-1-phosphate.

2. The inventions listed as Groups I-XVI do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

Each group consists of a method involving different steps and different enzymes and different starting substrates and can constitute a separate invention.

3. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

Please see the following claims: 5, 6, 7, 8, 9, 10, 13, 14, 21, 22, 23, 33, 34, 35, 40, 41, 43, 44, 45, 46, 50, 51, 52, 54, 55, 56, 58, 59, 60, 62, 63, 64, 65, 66, 67. The above claims have multiple species in them. Applicant is requested to elect a single species from each of the above claim.

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Art Unit: 1652

The following claim(s) are generic: Claims 1-20. Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

4. The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: In case of enzymes, each enzyme consists of amino acid sequences which are not related to each other. In case of chemical compounds, each chemical compound is distinct from the other because of the chemical nature. In case of microorganisms, each microorganism recited belong to separate family/subfamily and are not closely related to each other.

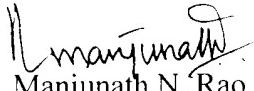
5. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(l).

Art Unit: 1652

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manjunath Rao whose telephone number is (703) 306-5681. The Examiner can normally be reached on M-F from 6:30 a.m. to 3:00 p.m. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, P.Achutamurthy, can be reached on (703) 308-3804. The fax number for Official Papers to Technology Center 1600 is (703) 305-3014.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

  
Manjunath N. Rao

December 19, 1999



PONNATHAPU ACHUTAMURTHY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1600